Background Notes on the Service Sector in Ontario

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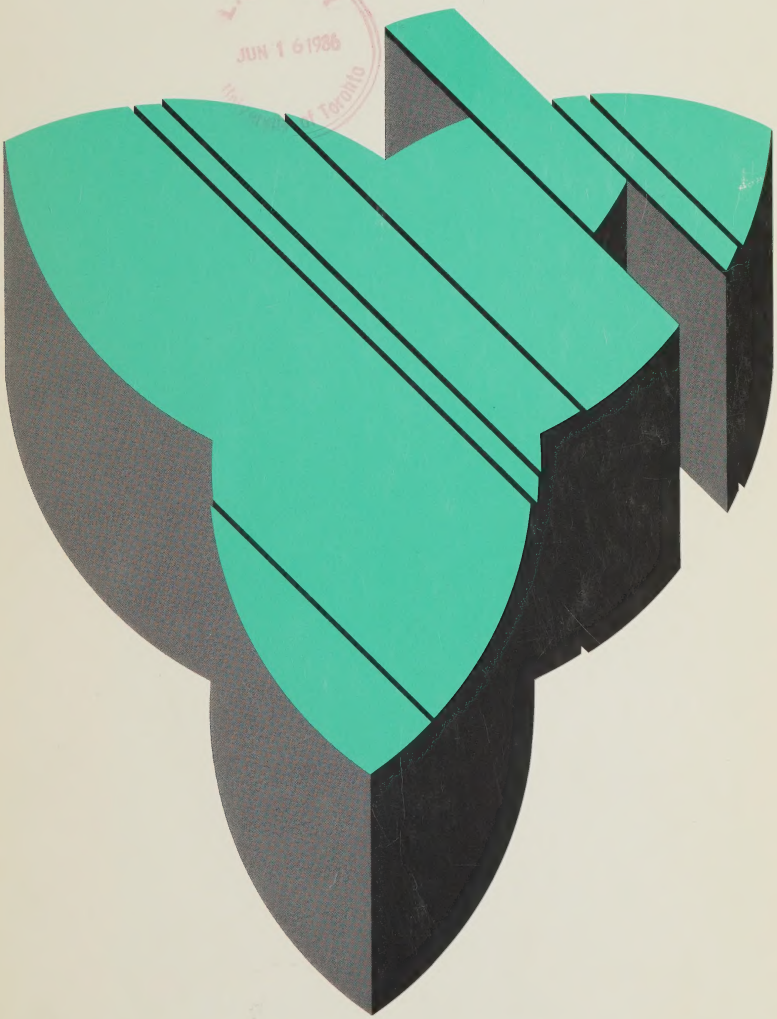

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Ministry of Treasury and Economics
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March 13, 1986

The Honourable Robert Nixon,
Treasurer of Ontario,
Queen's Park,
Toronto.

Dear Mr. Nixon:

On October 15, 1985, I was asked to undertake a study of the service sector in Ontario, and to report the findings to you within a year. My understanding of the study's mandate is the following:

- To identify the significance of the service sector to Ontario's economy;

- To establish where growth has been occurring within this sector, where it is likely to occur on the basis of current trends, and where it might be encouraged to occur by the application of appropriate government policies;

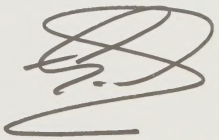
- To examine what other jurisdictions, both within Canada and abroad, are currently doing or are likely to do to support their respective service sectors;

- To assess the efficacy of existing public policy measures and structures dealing with the service sector;

- On the basis of the above findings, to present policy options for consideration by the Ontario government to support growth of the service sector in terms of jobs and/or wealth creation, with special emphasis on action to enhance the export of Ontario services.

Considerable analysis has been completed to date on the study and I am pleased to provide this interim report for consideration.

Yours sincerely,



George Radwanski

Background Notes on the Service Sector in Ontario

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Introduction

The service sector is by far the largest component of Ontario's economy in terms of employment and Gross Provincial Product. It has also exhibited the fastest growth rate as a sector, and is the largest employer of women in the Ontario economy.

It is, therefore, timely to look at the service sector in greater detail. The following are some of the preliminary findings of a study initiated in October, 1985. (For sources of all reference material, please see the Appendix.)

Scope of Service Sector

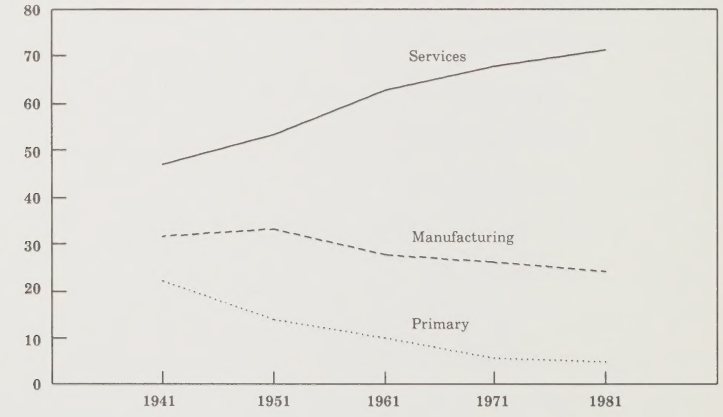
1. The service sector in Ontario now accounts for 73 per cent of employment[1] and 70.2 per cent of Gross Domestic Product.[2]

2. This emergence of the service sector as the largest component of our economy is the key element of a socio-economic transformation as fundamental as the earlier transition from agrarian to industrial economies. This transformation, widely described as the emergence of a "post-industrial" society, is occurring not only in Ontario but also in Canada as a whole and in more than a dozen other advanced industrialized countries. In Canada, the service sector accounts for 75.6 per cent of employment[3] and 72.4 per cent of Gross Domestic Product.[4] In the U.S., it accounts for 76.8 per cent of employment and 73.3 per cent of Gross Domestic Product.[5]

3. The service sector absorbed 84.6 per cent of the total labour force growth in Ontario between 1941 and 1981.[6] According to the Ontario Task Force on Employment and New Technology (1985), 80 per cent of all new jobs created in Ontario over the next decade will be in the service sector.

4. This growth of the service sector is not a new or sudden phenomenon. Rather, it has been a steady progression over decades. In 1941, 46.8 per cent of Ontario's labour force was in the service sector; in 1951, 53.2 per cent; in 1961, 62.6 per cent; in 1971, 67.9 per cent; and in 1981, 71.6 per cent.[7]

ONTARIO LABOUR FORCE, DISTRIBUTION BY SECTOR, 1941 TO 1981



Source: Statistics Canada, Census Data.

5. The service sector is by far the largest source of employment for women in Ontario, accounting for 82.4 per cent of all the province's

employed women.[8] Within the service sector, 49.1 per cent of employees are female, compared to 43.5 per cent in the Ontario economy as a whole. In manufacturing, only 28.7 per cent of employees are female, and in the primary sector only 25.8 per cent. [9]

6. This emergence of the service sector as the largest component of our economy appears irreversible. Consequently, it is not useful to debate whether the shift to a "service economy" is desirable; it is already an inescapable fact of life.

7. The issue is not, however, one of services versus manufacturing. The manufacturing sector is, and will remain, a vitally important generator of wealth in our economy. Far from being competitive with each other, the goods-producing and service sectors are fundamentally complementary. A balanced public policy would ensure that each sector is given the support necessary to enable it to live up to its full potential.

Reasons for Closer Study

8. It makes good sense to look very closely at the economic sector that provides a livelihood for three out of four employed Ontarians -- a total of 3,214,000 service-sector employees.[10]

9. More specifically, it is appropriate to intensify attention to the service sector for the following reasons:

   - It has been estimated that 80 per cent of new jobs in Ontario over the next decade will be in this sector, but it is by no means assured that this sector would live up to its full potential to produce jobs -- in particular, high-quality jobs -- and wealth, in the absence of supportive public policy.

   - It would not be possible to understand fully the broader socio-economic transformation often described as the emergence of a "post-industrial" society without coming to grips with the role played by the service sector.

   - The growing internationalization of services and the growing global trade in services present both opportunities and competitive risks which must be understood in order to be appropriately addressed.

   - The competitiveness of our manufacturing sector in the world economy will depend to a considerable extent on its access to support from an efficient and innovative service sector.

   - Other jurisdictions -- notably the United States, Britain and Japan -- have begun a major push on service sector issues. We risk being at a disadvantage if our own understanding in this area does not catch up and keep pace.

Definition of Service Sector

10. A first step in understanding the service sector is focussing on what it encompasses. There is, unfortunately, no universally accepted definition of what constitutes this sector.

    Some attempts at definition focus on the "intangibility" of services. In this view, a service is something that is of economic value but that cannot be physically touched or handled. But this can be misleading and confusing. Not everything of economic value that is intangible -- for example business reputation or "good-will" -- is actually a service. And not every service is readily perceived as intangible; for example books, videocassettes and credit cards. (Each of these is actually a service embodied in a good; the bulk of the value is respectively in the literary content, the recorded entertainment and the facilitation of financial transactions, rather than in the paper, celluloid or plastic.)

    Other definitions use the "residual" approach: whatever cannot be readily categorized as part of the primary or manufacturing sectors is regarded as part of the service sector. But even here, there are disagreements: some "residual" definitions exclude construction and/or utilities from the service sector.

11. For public policy purposes, the most useful -- and least contentious -- definition to use is the "residual" approach in its broadest form. Construction and utilities are included in the service sector because they do not fit satisfactorily into either the primary or manufacturing sectors and would not readily tend to respond to broad initiatives aimed at either of those sectors.

    Accordingly, the service sector in Ontario is defined in this study as comprising all economic activity other than agriculture; forestry; fishing, hunting and trapping; oil wells, mines, and quarries; and manufacturing. (Services ancillary to these activities -- for example services to agriculture -- are considered part of the service sector.)

12. Specifically, the service sector in Ontario encompasses more than 100 distinct types of activity grouped by Statistics Canada into six broad divisions: construction; transportation, communication and other utilities; trade; finance, insurance and real estate; community, business and personal services; and public administration and defence.

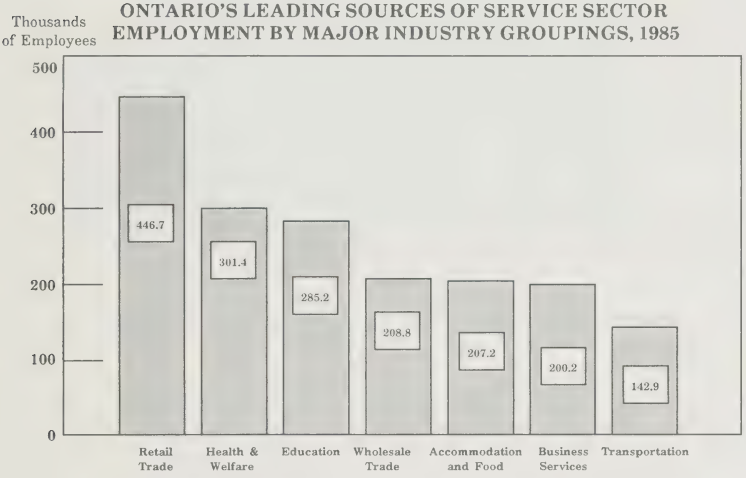
Largest Components of Service Sector

13. In Ontario, the seven largest service sector major industry groupings in terms of employment (1985) are:[11]

    - retail trade;
    - health and welfare services;

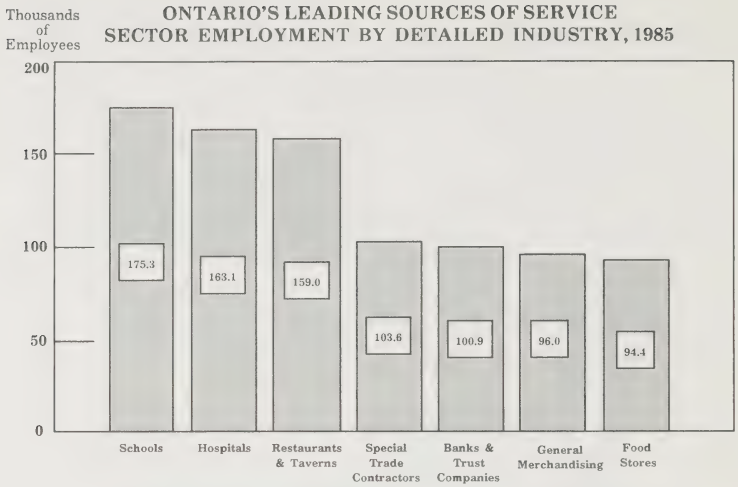
- education and related services;
- wholesale trade;
- accommodation and food;
- services to business management; and
- transportation.

ONTARIO'S LEADING SOURCES OF SERVICE SECTOR EMPLOYMENT BY MAJOR INDUSTRY GROUPINGS, 1985



Source: Statistics Canada, CANSIM, Matrix 8363 (Survey of Employment, Payrolls & Hours), March, 1986.

14. At a more detailed level, the largest specific industries (excluding public administration and defence) in the Ontario service sector in terms of employment are:[12]
    - elementary and secondary schools;
    - hospitals;
    - restaurants, caterers and taverns;
    - special trade construction contractors;
    - banks and other deposit-accepting establishments;
    - general merchandise stores; and
    - food stores.

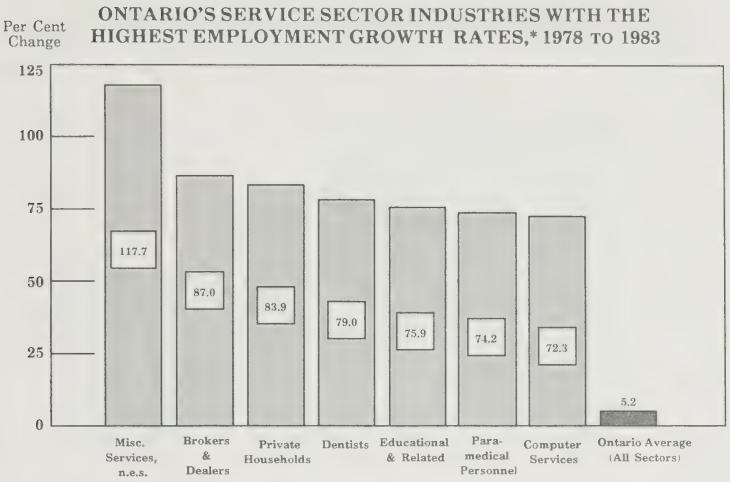


Source: Statistics Canada, CANSIM, Matrix 8363 (Survey of Employment, Payrolls & Hours), March, 1986.

Strongest Growth Areas

15. Currently the fastest-growing individual industries in the Ontario service sector, in terms of rate of increase in employment between 1978 and 1983 (measured in "full-year equivalent" jobs) are:[13]

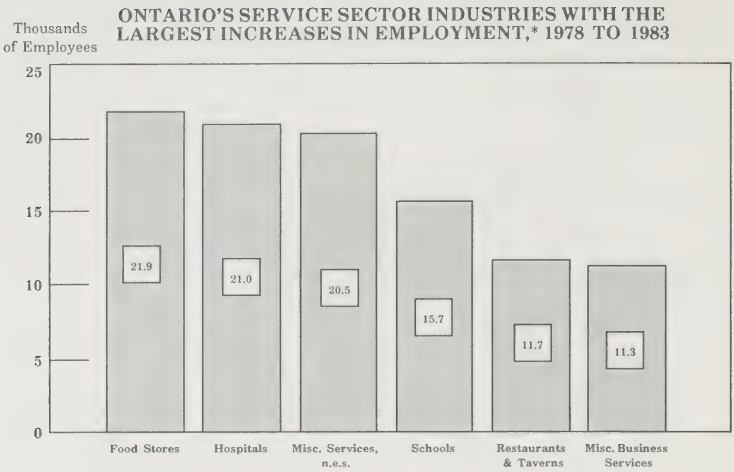
- miscellaneous services, not elsewhere specified (for example: translating services, driving schools and service clubs);
- security brokers and dealers;
- private households;
- offices of dentists;
- educational and related services (other than schools, universities, etc.);
- offices of para-medical personnel;
- computer services; and
- miscellaneous personal services (for example: baby sitting services; tourist, hunting and fishing guide services; and physical fitness studios).



* Measured in Terms of Full-Year Equivalents
Source: Statistics Canada, Business Microdata Integration and Analysis, Special Computer Run 1986

16. Over the same 1978-83 period, the fastest-growing individual industries in the Ontario service sector, in terms of actual number of new full-year equivalent jobs created, were:[14]

- food stores;
- hospitals;
- miscellaneous services, not elsewhere specified;
- elementary and secondary schools;
- restaurants; and
- miscellaneous business services (for example: credit bureaus; duplicating and blue-printing services; fashion design and consulting; and telephone answering services).



* Measured in Terms of Full-Year Equivalents
Source: Statistics Canada, Business Microdata Integration and Analysis, Special Computer Run, 1986.

17. To understand how and why the emergence of the service sector as the largest component of our economy is occurring, it is useful first to classify services by the role they play in our economy. Using this approach, services can be classified into the following:

    - distributive services (transportation, communications, utilities and wholesale);
    - construction services;
    - retail services;
    - producer or business services (finance, insurance, real estate, services to business management);
    - social services (health, education, welfare);
    - mainly consumer services (amusement and recreation; accommodation and food services; personal services); and
    - public administration and defence.

18. Applying this classification to the rate of growth in the labour force and to the actual number of service sector jobs in Ontario between 1941 and 1981, the following picture emerges:[15]

Growth In Ontario's Service Sector Labour Force, 1941 - 1981

Sector	1941	1981	Change No.	Change %
Distributive Services	150,133	535,345	385,212	256.6
Construction Services	83,605	249,590	165,985	198.5
Retail Services	153,379	527,435	374,056	243.9
Producer or Business Services	52,660	468,180	415,520	789.1
Social Services	70,129	580,820	510,691	728.2
Mainly Consumer Services	141,862	396,185	254,323	179.3
Public Admin. & Defence	53,440	311,540	258,100	483.0

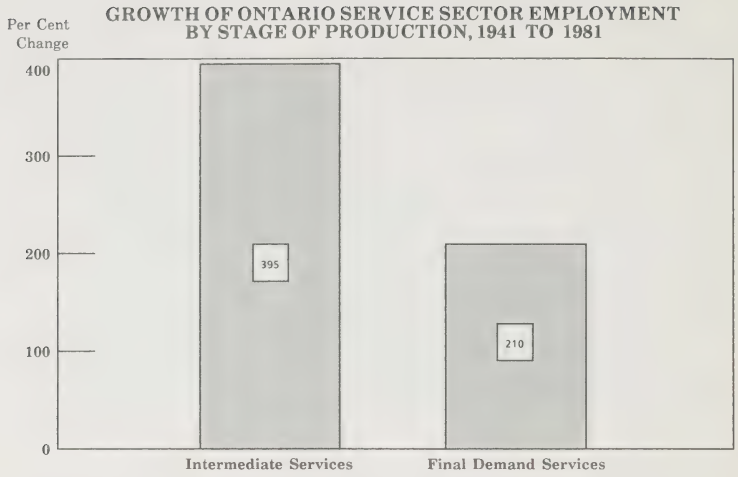
Source: Statistics Canada, Census Data, 1941 and 1981

Notes: Distributive Services include transportation, communications, utilities & wholesale trade. Producer or Business services include finance, insurance, real estate & services to business management. Social Services include health, education & welfare. Mainly Consumer Services include amusement & recreation, accommodation & food services & personal services.

By far the greatest growth, both in percentage terms and in absolute numbers, occurred in producer or business services and in social services. Producer or business services had by far the most rapid rate of growth, while social services -- starting from a larger numerical base and being more labour-intensive -- had the largest increase in absolute numbers.

19. Another useful form of classification of services is by stage of the production process. Using this approach, services fall into two broad categories: intermediate services (distributive and producer or business services) which are inputs used in the production of a final good or service; and final services (construction, retail and mainly consumer services) which are purchased directly by the final user.

20. Setting aside social services, public administration and defence, which are not market commodities in the same sense as other services, the picture of service sector growth in Ontario between 1941 and 1981 in terms of stage of production is shown in the following graph.[16]



Source: Statistics Canada, Census Data, 1941 and 1981.

Intermediate services grew at almost twice as rapid a rate as final services.

21. Similarly stronger growth in intermediate services is apparent when one applies the stage of production classification to creation of new full-year equivalent jobs between 1978 and 1983:[17]

Growth of Ontario Service Sector Employment by Stage of Production, 1978 to 1983

			Change	
Stage*	1978	1983	No.	%
Intermediate Services	805,322	875,919	70,597	8.8
Final Demand Services	853,866	893,623	39,757	4.7

Source: Statistics Canada, Business Microdata Integration and Analysis. Special Computer Run, January 1986.

* See paragraphs 17 and 19 for definitions.

22. These findings clearly show that the widespread perception of service sector growth as mainly a proliferation of such establishments as fast-food outlets and dry cleaners is a myth. In fact, labour force participation in mainly consumer services had the service sector's

slowest rate of growth between 1941 and 1981, and only construction services had a smaller increase in actual numbers.

The strongest growth was in producer or business services -- which include finance, insurance, real estate, employment agencies and personnel services, computer services, security and investigation, accounting, advertising, architects, engineering and scientific services, lawyers and notaries, management consultants and miscellaneous services to business management -- and in health care and education.

23. Data on personal expenditures on goods and services in Ontario confirm that the growth of the service sector is not due in any large measure to a shift in *consumer purchases* from goods to services.[18]

In *current* dollars, the proportion of services to goods in personal expenditures increased significantly between 1961 and 1984. In 1961, services accounted for 38.6 per cent of personal expenditures and goods accounted for 61.4 per cent. By 1984, the share of personal expenditures devoted to services had increased to 46.1 per cent, while the share devoted to goods had correspondingly dropped to 53.9 per cent.

In *constant* 1971 dollars -- that is, in dollars adjusted for inflation -- however, the share of services over the same period was virtually unchanged, increasing only fractionally. In 1961, services accounted for 42.4 per cent of personal expenditures and goods for 57.6 per cent; in 1984, services accounted for 42.6 per cent and goods for 57.4 per cent.

This indicates that the price of services rose more rapidly than the price of goods over this period -- but people's incomes rose too, enabling them to keep pace. People absorbed the price increases and continued to consume services in at least the same proportion as in the past. But this evidence does not support a view that people have actually begun purchasing significantly fewer goods and instead purchasing significantly more services.

Reasons for Growth

24. Against this background, the emergence of the service sector as the largest component of our economy may be explained by a combination of factors:

a) *Sharply increased demand for intermediate services (business or producer services, and distributive services):*

As manufacturing has become increasingly automated, managements have been able to shift much of their attention from production problems to planning, product development, market strategy and administrative control. This trend was reinforced and accelerated in the years after World War II by the growing emergence of large corporations that require various

functions -- for example management, communication and control functions, employee hiring and evaluation, employee training, marketing -- to be carried out in a much more specialized way than in smaller firms.

At the same time, the growing importance of nationwide rather than merely regional consumer markets in the post-war years led to the increasing development of nationwide networks of distribution and retailing. Then the reduction of regional differences created markets broad enough to permit producers increasingly to target different consumer segments through product differentiation -- that is, through providing many variations on the same basic type of product. This differentiation has in turn increased the need for a variety of service functions such as consumer research, product development and design, advertising and specialized retail outlets.

Finally, in recent years there has been a growing tendency by corporations to "spin off" service functions that used to be done in-house, purchasing them instead from free-standing specialized firms. One effect is to transfer the statistical recording of employment and output from these activities from the manufacturing sector to the service sector. But what occurs is not only a statistical transfer of the same activity. Though no detailed empirical work has been done on this, anecdotal data and expert opinion suggest that such spinning off results in a net increase in employment and output, because the newly-created firms also take on as clients smaller businesses that were unable to have the same sophisticated services carried out in- house.

b) *Sharply increased demand for social services (health care and education):*

Both health care and education levels are closely linked to a society's growth in affluence. In addition to the public's increased expectation of top-quality health care and higher levels of education, the growth of these services has been spurred by demographic change and by some consequences of the progressive shift to a service economy itself. As more and more activity is centered in the labour-intensive service sector, there has been at least implicit recognition of the importance of nurturing human capital through health care (for example, reducing sickness-related absenteeism) and education (many service functions require broader and comparatively sophisticated skills).

c) *Increased demand for some consumer services:*

While consumer services as a whole have grown much less rapidly than other types of services, there has nevertheless been significant growth as a result of increasing affluence and lifestyle changes. There is no indication that purchase of services has been replacing purchase of goods to any significant extent. What does

appear to be happening, however, is that as disposable income increases, more of the increment often goes to certain services than to goods.

In part, this may be explained by the fact that increased affluence enables people to move higher up the hierarchy of consumption needs. That is, available income is normally spent first on basic survival needs (such as food, shelter, clothing). If money is left over after that, it tends next to be spent on convenience needs (for example: a car instead of public transportation, time- and labour-saving devices such as dishwashers, vacuum cleaners and various household gadgets). And if there is disposable income left after basic and convenience needs have been met, it tends to be spent on lifestyle/satisfaction needs. It happens that this last category of needs typically involves a larger component of services or services combined with goods -- for example, sports activities such as skiing which require both equipment (goods) and lessons and facilities (services).

The tendency of incremental affluence to go somewhat more toward services may also be in part because the market for services is less prone to saturation. That is, someone with increased disposable income is not likely to buy a second kitchen stove or a new stereo if he or she already has both and is satisfied with their features, but may go to good restaurants more often or do more pleasure travel. Similarly, people may already have most time- and labour-saving devices such as dishwashers and vacuum cleaners -- but there is an endless and growing variety of "convenience" services such as interior decorating, fashion consulting and catering.

Some increased demand for consumer services is also attributable to changes in lifestyle and population structure. For instance, the accelerated rate of entry of women into the labour force has increased the demand for day care, housekeepers, take-out food services and so on. Similarly, the aging of our population will create new demands for some services, as does the increased number of adult singles in our economy due to later marriages and a higher divorce rate than in the past.

d) *The more labour-intensive nature of services:*

On the whole, services tend to be much more labour-intensive and less subject to extensive automation than goods production. Thus manufacturing employment has grown slowly in response to increased demand for goods, while service sector employment has grown very rapidly in response to increased demand for services.

e) *Competitive and market pressures on manufacturing:*

Though the shift to services began at a time when our goods production was performing very strongly, it is now being given impetus and higher visibility by the problems affecting mass-

production manufacturing. As developing countries become increasingly capable of making even relatively sophisticated mass-produced goods, as the domestic market for some major consumer durables approaches saturation, and as new technologies displace workers in goods production, people will increasingly turn toward the service sector for employment.

25. The shift to a service economy does not mean that services are replacing manufactured goods, any more than the emergence of industrial society eliminated the production of agricultural commodities. It does mean that some types of mass-produced goods may increasingly be produced elsewhere, and that those highly specialized, sophisticated and innovative goods we should be striving to produce will involve relatively few new jobs in the actual production processes. Thus the prospect -- directly analogous to the earlier transition from agriculture to manufacturing -- is that manufacturing will be a major source of output and wealth but not of employment, while it is primarily to the service sector that we will have to look for new jobs.

Relationship to "Information Society"

26. It is also important to note that the shift to a service economy or "post-industrial" society is not at all synonymous with concepts of an "information society". While recent developments in information and communications technology undoubtedly support and accelerate the further growth of services, the transition to a service economy began at least in the 1940s and was well established before the new information technologies were a major factor. Moreover, the large component of growth in the education and health care areas cannot be attributed substantially to the new information technologies. It would not, in any event, likely be a fruitful exercise to try to reach agreement on what activities should or should not be considered part of an "information economy". Virtually every type of activity -- whether it be making shoes or performing neurosurgery or devising computer software -- involves information or knowledge to some extent; it is all a matter of degree.

Perceptions of the Service Sector

27. Many people believe that services are somehow less "real", valuable or desirable than goods, or that they are merely a by-product of manufacturing activity. This view of services goes back at least as far as Adam Smith, and it closely parallels the contempt with which incipient manufacturing industry was regarded by landed gentry and farm workers towards the end of the agrarian era. But there appears to be no persuasive basis for the view that services are inherently inferior to goods production in today's economy.

28. At the conceptual level, much is made of the "intangible" character of services as compared to goods. But it is difficult to see why this

matters as a general principle. Is a surgical scalpel (a tangible good) inherently more real or valuable than the work of a surgeon performing a life-saving operation (an intangible service)? Are a dishwashing liquid that goes down the drain after it is used, or disposable paper tissues (both tangible goods) really more durable in any meaningful sense than a haircut (a service)?

A more realistic view is that both the manufacturing and service sectors have outputs that range from the frivolous and simple to the vital and highly sophisticated -- from bubble gum to antibiotics in manufacturing, and from shoe shines to surgery in services. Antibiotics are obviously more important and valuable than shoe shines, and surgery obviously ranks ahead of bubble gum. What is equally clear is that there is no apparent logic in saying that antibiotics are inherently of a higher economic order than surgery -- simply because one is a good and the other a service.

29. Similarly, the role of the service sector in today's economy goes considerably beyond being a mere "by-product" of manufacturing. Only about 35 per cent of the total output of intermediate services goes to the manufacturing and primary sectors; the remaining 65 per cent goes to other services.[19] For instance, only some 23.9 per cent of services to business management goes to manufacturing; other recipients of business services output include finance industries (15.2 per cent), construction (15.8 per cent), community, business and personal services (10.5 per cent), and trade (11.4 per cent).[20]

Thus, while growth in manufacturing undoubtedly enhances growth in the service sector, even the intermediate services part of this sector is not entirely dependent on manufacturing growth. It can and does grow through the development of new or expanded services to other service firms. And, of course, other services such as the social and personal ones can even less readily be regarded as "by-products" of the manufacturing sector.

30. There is a valid concern that the service sector has more low-paid jobs than the manufacturing sector. The average weekly earnings (excluding overtime) of workers in Ontario manufacturing in January, 1986, were $493.13. In the service sector (excluding construction) they were $387.89.[21]

But this overlooks the fact that there are great variations in job quality and in pay levels in the service sector, as indeed there are in manufacturing. In shoe manufacturing, for instance, average weekly earnings were $277.48; in clothing manufacturing, $315.89; in bakery products, $333.77. In the construction part of the service sector, meanwhile, average weekly earnings were $498.03; in offices of securities brokers and dealers, $695.56; in primary and secondary schools, $554.99; and in computer services, $595.76.[22]

The most rapid growth in the service sector, as noted above, has been in such sophisticated and skilled areas as business services, health

care and education which provide some very well-paid employment, though each of these industries also has a large tier of low-wage jobs.

31. If a shift of the labour force from manufacturing to the service sector really produced lower incomes and declining living standards, then that is what we should have been experiencing in Canada for the past 40 years. In fact, the reverse has been the case.

32. In any event, the service sector is in no sense creating jobs at the expense of the goods-production sector. Aside from continuing efforts to maximize the potential of the manufacturing sector, consequently, the appropriate priority for public policy is to seek to ensure that as much future service sector growth as possible will be in highly-skilled, well-paid activities rather than in low- skilled, low-paid ones.

The Question of Productivity

33. It is widely assumed that the rate of productivity growth in services is lower than in manufacturing. But the matter is not nearly so simple for the following reasons:

a) *There are serious problems of measurement and definition:*

In manufacturing, productivity is generally measured in terms of output per worker. But in the case of intangible and highly diverse services, there is no agreement on what constitutes output. Is a lawyer's output, for instance, to be measured in terms of number of clients seen in a day or number of cases handled? If so, then a lawyer quickly dealing with simple, routine matters will be far more productive than one dealing with important, time-consuming cases. Should it be measured, then, in terms of the billing revenues generated for the firm? If so, then giving legal advice that saves a client from having to fight a long and costly lawsuit would have to be regarded as unproductive. Similar conceptual problems exist throughout the service sector: should a bank's productivity, to cite another example, be measured in terms of number of customers served or dollar value of transactions handled?

Another measurement problem is that productivity gain related to service activity does not always occur within the provider of the service. To cite one simple example, a firm that calculates and prepares income tax returns for individual customers may seem relatively unproductive in terms of the size of its workforce. But if people use this service instead of skipping work to fill out the forms, say, or instead of staying up most of the night and being inefficient at work the next day, then some productivity gain has occurred elsewhere in the economy. Even more important, since neat and expertly prepared tax returns are likely to require less time for revenue ministry officials to process than incomplete or messy ones, a "low-productivity" service in one place may be producing substantial productivity gains somewhere else.

Similarly, the work of a management consulting or computer software firm in the service sector may lead to substantial productivity gain within a manufacturing enterprise -- but that gain in the economy would not be statistically attributed to the service sector.

b) *Productivity, and the potential for improvement, differ widely from activity to activity in the service sector:*

Some services, because they require direct personal contact between the provider and the recipient of the service, are by nature labour-intensive and have very limited scope for productivity gain without unacceptable loss of quality. It would be absurd, for instance, to expect that a symphony orchestra could adopt labour-saving technology to reduce the number of musicians needed for a live performance.

Some service industries can, and do, accomplish major productivity gains -- either by adopting labour-saving technology (for example, computers or word-processors) or by inducing or forcing the consumer to do more of the work himself (for example self-service gas stations). Some productivity gains involve both techniques at once (for example the use of automatic-teller machines by banks transfers work from a human teller to the customer, and also reduces back-office work in records-keeping and verification).

34. Because of these and other difficulties, there are no reliable data comparing over-all productivity in the manufacturing and the service sectors. Some experts believe that productivity is still lower in the service sector as a whole, while others say the two sectors are about equal. There is general agreement that the rate of productivity growth is higher and accelerating in manufacturing, however. This, again, reinforces the prospect that much future labour force growth will have to be absorbed by the service sector rather than by manufacturing.

35. While the scope for full automation is much more limited than in goods production, it is expected that there will also be a wave of productivity gains in many service-sector industries. This will occur both through the introduction of new technologies -- computers, including "expert machines" for example -- and through the "industrialization" of many service functions through a combination of centralized management control, standardization of purchasing and service delivery methods, new technologies, and the like. Such productivity improvements should be beneficial in terms of lowering the rate of price increase and therefore increasing the demand for services, and also in terms of making our manufacturing industries more competitive by providing service inputs at lower cost. On the other hand, they are likely to reduce the commercial service sector's capacity to create new employment.

Meeting Social Needs with Services

36. While seeking to refine methods of productivity measurement for the service sector, it is also useful to ask whether the emphasis on productivity, as it is currently understood, is as relevant in a "post-industrial" economy as it has been in the past. One of the characteristics of this new economy is that all the goods we can consume or hope to sell will increasingly be produced by automated processes involving relatively little of the labour force.

    If, in such an economy, society collectively prefers to have a larger share of its Gross Provincial Product in such "low-productivity" activities as health care, education, day-care, research or even recreation and restaurant services, rather than in cars or household appliances, is that necessarily bad? Is it preferable to have a higher rate of productivity growth -- even if it can only be accomplished by production of less-desired goods for which demand must be artificially created?

    It may initially appear that there is no choice, given the need to generate wealth through exports and the importance of productivity to export competitiveness. But from the point of view of exports, rapidly growing productivity is essential only in terms of the goods and services that are exported -- not in terms of the economy as a whole. Thus, provided we attain satisfactory productivity growth in manufacturing and in the production of exportable services, is it necessarily harmful if the over-all rate of productivity growth in our economy is lowered by shifting more of our human resources into labour-intensive activities that meet social needs or wants while providing additional employment?

Distinctive Characteristics

37. The service sector has several distinctive characteristics that should be taken into account in the formulation of appropriate public policy:

    - In manufacturing, the most important inputs are capital and raw materials; in most service industries, the most important inputs are people and knowledge.

    - In manufacturing, technological change is primarily embodied in capital equipment; much of the service sector is characterized by labour-embodied technological change. That is, improvements in efficiency or quality in manufacturing tend usually to be accomplished by the installation of new equipment. In service fields such as health care, engineering and management consulting, technological change is more likely to be accomplished by retraining or by the hiring of new graduates familiar with more up-to-date techniques.

    - The service sector has a much stronger small business orientation than does the manufacturing sector. Firms with fewer than 20

employees account for 89.8 per cent of all firms in the service sector; the comparable figure in the manufacturing sector is 65.5 per cent. Some 33 per cent of total service sector employment is in firms with 49 or fewer employees (the proportion is not higher because the sector also includes huge employers such as hospitals, utilities, transportation companies, etc.). In manufacturing, by contrast, only some 13 per cent of employees are in firms of this size.[23]

- Employment growth in the service sector is largely due to entrepreneurial activity -- that is, the birth of new firms -- rather than to expansion of existing businesses.
- The service sector provides much more flexible employment than does manufacturing. There is far higher incidence of part-time employment, and it is easier to leave and re-enter the labour force.

Vital Role of Knowledge

38. Since human capital is the most important input into a service economy and since service-sector activity tends to be highly knowledge-intensive, it follows that producing a knowledgeable, well-educated work force is one of the most fundamental infrastructure requirements of an economy in which the service sector plays the largest role.

39. This reliance on knowledge -- in terms of both education, and innovation through research and development -- becomes all the more vital when one considers our competitive position in today's world.

    We are rapidly losing our comparative advantage in the export production of mass-produced goods and in primary commodities. The diffusion of technologies means that newly-industrializing countries are increasingly able to make even quite sophisticated mass-produced goods at lower cost.

    Where we do still have comparative advantage -- or, at the very least, the potential to build on lack of comparative disadvantage -- in a world populated predominantly by people in newly-industrializing countries, is in our comparatively highly educated work force and in our consequently superior know-how. In goods-production, this gives us the capacity to build comparative advantage by emphasizing product innovation and the production of those complex goods that require a high degree of flexibility, know-how and sophistication. In the service sector, similarly, our potential comparative advantage lies in our ability to export our advanced knowledge and expertise, perhaps particularly to these newly-industrializing countries.

    But what is true for us is equally true for all other advanced industrialized economies. Therefore, to be able to compete effectively

under these new circumstances, we cannot simply rest on our accomplishments to date.

40. Specifically, to build economic growth on our knowledge, we need:

    a) *Leading-edge expertise in the knowledge-intensive areas of activity:*

    We need excellence in education and retraining, and a constant process of entrepreneurship, research and development and innovation;

    b) *Mechanisms to package and market that expertise:*

    We need sophisticated market intelligence to identify export opportunities and we need institutions with the specialized marketing skills and resources to package, sell and deliver our knowledge-intensive services abroad.

Comparative Advantage in a Service Economy

41. It is also worth noting that in a "post-industrial" economy, comparative advantage can be a dynamic rather than a static concept. In a manufacturing-dominated economy, the assumption has tended to be that the presence or absence of comparative advantage is inherent as a function of geography and access to labour, resource and capital inputs, and that trade strategy must be devised on the basis of these givens. In a post-industrial economy, it may be possible to create comparative advantage by devising strategies to create innovative and attractive packages of combined goods and services, or of combinations of services.

    For example, a service with a strong competitive position (the American Express credit card, for example) can be used as a "locomotive" to pull along a different service that by itself would have no particular advantage over its competitors (for instance travel insurance, which obtains comparative advantage by being sold to American Express clients along with the card).

    Similarly, as the experience of New York City has shown, a package of services such as culture (theatre, art, opera, nightlife and the like) can create comparative advantage by attracting other "footloose" services through the provision of an environment where people want to be despite other inconveniences. Or the availability of a critical mass of universities and/or research institutions can be a magnet for attracting private-sector activities -- computer software or biotechnology firms for example -- that would benefit from proximity to a pool of diverse expertise.

    In the case of Ontario, one example of this sort of comparative advantage is Toronto's role as a financial center of international stature. The more clearly Toronto is perceived as such a centre, the more potential there can be to attract related business activity. For this reason, it is important that Toronto be included in any federal

designation of Canadian cities as International Banking Centers; otherwise there might be a misperception that Toronto's role is deliberately being reduced. The perception of Toronto as a financial center could also be enhanced by proceeding with establishment of a Canadian Insurance Exchange in the city.

The Need For Public Policy Focus

42. Despite its great importance, the service sector in Ontario -- and in Canada as a whole -- has received far less public policy attention than the primary and secondary sectors.

43. The manufacturing and primary sectors have been the focus of explicit economic development policy-making. Some service-sector activities -- for example, construction and tourism -- have received special attention, and measures designed to assist small business are often beneficial to service sector firms. But policy is seldom designed with an eye to the needs of the service sector, as such, in the same way as to those of manufacturing or the primary sector. For example, Ontario's Small Business Development Corporations (SBDC) program funding has been available to manufacturing firms but not (with limited and recent exceptions) to service businesses. Similarly, the scope for Ontario Development Corporations has been limited to the manufacturing sector and tourism, as has the availability of loans, guarantees and grants under the federal Industrial and Regional Development Program.

Taxation Policy

44. In the 1986 federal budget, it was announced that corporate tax rates will be lowered over the next three years -- but a preference for manufacturing will remain intact. By 1989, the basic federal tax rate for manufacturing companies is to be 26 per cent, compared to 33 per cent for other companies, primarily those in the service sector. The special rate for small business similarly is to be 8 per cent for manufacturing, compared to 13 per cent for other businesses (primarily services).[24]

    In Ontario, the basic corporate income tax rate is 14.5 per cent for manufacturing firms, and 15.5 per cent for other firms. The small business rate is the same -- 10 per cent for both manufacturing and services.[25]

45. Calculations done for this study show a significant difference in the corporate income tax that would actually be payable, both federally and provincially, subsequent to the February 26 federal budget by similar-sized businesses in the manufacturing sector and the service sector:

    A small consulting firm and a small manufacturing firm, each with a taxable income of $12,000, would pay the same amount in Ontario tax: $1,200. But the small service sector firm would pay federal tax

of $1,800, compared to only $1,200 for the small manufacturer. In total, the service sector firm would pay $3,000 compared to only $2,400 for the manufacturer -- a difference of 25 per cent.[26]

A large consulting firm with a taxable income of $1.5 million would pay $221,500 in Ontario tax; a large manufacturing firm with the same income would pay only $208,500. In federal taxes, the consulting firm would pay $521,400, compared to only $429,500 for the manufacturer. In total, the service sector firm would pay $742,900 compared to only $638,000 for the manufacturer -- a difference of 16.4 per cent.[27]

46. It should be noted that these imbalances may be offset to some degree by the fact that special tax incentives for small business are, on the whole, of greater benefit to the service sector, since there are more small businesses in this sector than in manufacturing.

47. It can also be argued that the absence of sales tax on most service transactions is a special benefit whose value exceeds that of other tax preferences for manufacturing. But there is an important difference: the absence of a sales tax benefits a business only indirectly, by providing a stimulus -- or, perhaps more accurately, by not imposing a disincentive -- to the consumption of services and thereby increasing potential profitability. The corporate tax expenditures that favor manufacturing, on the other hand, reflect a deliberate policy decision to directly benefit enterprises by reducing either taxable income or tax payable.

Other Service Sector Problems

48. While the relative tilt of explicit and direct tax incentives toward manufacturing is an issue, other serious difficulties include:

Inadequate access to capital:

Because service sector firms tend to be small and therefore lack access to major investment markets, they tend to have great difficulty acquiring financing through equity. Instead, they are often forced to rely on debt financing for start-ups and expansion. And because they tend to be knowledge- and people-intensive, they have relatively little collateral; consequently, even debt financing is difficult to obtain, and it is expensive. The reliance on debt financing rather than equity also leaves these firms vulnerable if they encounter even short-term financial difficulties; they cannot meet their payments, and they go under.

Lack of access to management expertise:

Many service sector businesses tend to be started and run by people who are expert in some field of service activity -- such as computer software, or catering -- rather than in management. As the business encounters difficulties or expands and becomes more complex, these entrepreneurs often lack the skills to cope. Such small businesses

are seldom able to afford the services of high-quality management consulting firms, at least on an ongoing basis.

Lack of access to market intelligence:

People who run relatively small service-sector businesses often lack the time or the resources to obtain sufficient information about looming competitive threats, emerging changes in demand patterns or new domestic or export opportunities. And, even if they do know of an export opportunity they may lack the marketing expertise to know how to proceed. Many entrepreneurs also lack detailed knowledge about various government assistance programs; they feel they cannot afford the time to attend various government seminars, and they do not know how to quickly obtain government information through other means.

Lack of a specialized public policy voice:

Unlike the situation in the U.S. where a well-funded and increasingly influential Coalition of Service Industries has been in existence for several years, there is no lobby group in Canada or in Ontario to speak up exclusively for the interests of the service sector as a whole in the way that the Canadian Manufacturers Association speaks for manufacturing or the Ontario Federation of Agriculture speaks for farmers. Due to this lack of a specialized lobby for the specific interests of the service sector, those interests tend to be less clearly perceived in public policy debates and the chances of an adverse skewing of policy are increased.

Growing Importance of Trade in Services

49. Looking now to the international arena, it is important to note first that global trade in services is now growing at almost the same rate as trade in goods; some experts believe its dollar value will eventually outpace that of global trade in goods. Reliable and up-to-date figures for global or Canadian, let alone Ontario, trade in services are impossible to obtain. This is due to differences in definition and accounting methods as well as to the lack of any effective international monitoring system (services, unlike goods, are not subject to registration at customs checkpoints).

50. It is generally reported that international trade in services accounts for between 20 per cent and 25 per cent of total world trade, with a U.S. dollar value ranging between $350 billion and $700 billion a year.[28] Although the estimates vary widely, there is strong agreement that the volume of services trade is growing rapidly. And these figures greatly understate the total value of services trade, because they do not include export of services by establishing an affiliate or subsidiary abroad.

The International Monetary Fund, whose figures are regarded as conservative, has estimated that between 1970 and 1980 service exports grew at an annual average compounded rate of 18.7 per cent,

to U.S. $350 billion. During this same period, the IMF estimates that total world merchandise exports grew by 20.4 per cent a year, to U.S.$1,650 billion.[29]

The London Committee on Invisible Exports has estimated that world trade in services grew from U.S. $350 billion in 1978 to U.S. $585 billion in 1981, an annual growth rate of 19 per cent.[30]

51. According to Canada's "National Study on Trade in Services" presented to GATT in 1984, Canadian receipts from tradeable services -- defined in this instance as travel, freight and shipping, government transactions, business and personal services and other service transactions -- amounted to $11.7 billion in 1981; in that year, Canada had a net deficit of $3.1 billion in tradeable services.[31] According to 1980 International Monetary Fund data, using a somewhat different accounting system, Canada was the world's fifteenth largest exporter of services at U.S. $7 billion.[32]

52. Approximately 53 per cent of Canada's service exports go to the U.S., and 63 per cent of our service imports come from that country.[33] Canada's fastest-growing service trade is in business services. In this category, Statistics Canada includes: consulting and other professional services; insurance transactions; management and administration services; scientific research and product development; commissions; royalties, patents, trademarks and film rentals; advertising and sales promotion; computer services; equipment rentals; franchises and similar rights, and other services.

Between 1977 and 1981, Canadian exports of business services increased in value by 141 per cent, while payments increased by only 84 per cent. By far the sharpest increase in exports was in consulting and other professional services, which increased by 269 per cent, from $186 million in 1977 to $687 million in 1981.[34] The bulk of this increase came from exports of services to developing countries.

Forms of Service Trade

53. Services can be traded in a number of ways:

- embodied in goods (for example, books, films, computer software);
- by transfer of people (for example, a consultant or repair worker travelling abroad);
- by direct export (for example, data transmitted by telecommunications);
- by establishment and investment (for example, a bank opening a branch in another country);
- by franchising (for example, entrepreneurs in another country paying for permission to use a restaurant chain's name, techniques, advertising and distribution network, etc.); and

- by tourism (that is, people coming from abroad and spending money directly within the "exporting" country).

Tradeable Services

54. The following have been identified by various national studies as tradeable services:

    Air transportation; accounting; advertising; architecture; automobile and truck leasing; banking; communications; computer services; construction services; educational services; employment services; engineering; equipment leasing; franchising; health services; hotels and motels; insurance; legal services; maritime transportation; motion pictures.

55. In reality, developments in information and communications technology and in franchising make it possible for virtually every conceivable service to be exportable. Even such once isolated and seemingly untradeable retailing enterprises as small neighborhood convenience stores are now globally exportable through franchising (in Japan for example, there are now more than 1,000 7-Eleven convenience stores). Similarly, big U.S. household moving companies have established networks of associated firms in major countries to handle overseas transfers of employees of multinational firms. In some services (advertising for example) the trend toward internationalization is so strong that firms operating only in domestic markets are increasingly at a disadvantage with potential clients.

    At the same time, the potential for entirely new services, new combinations of existing services or new combined packages of goods and services is virtually limitless.

    This internationalization of services presents both opportunities and risks. On the positive side, there is no inherent reason why we cannot make ourselves aggressive world-class competitors in the export of services. On the negative side, if we fail to achieve such competitive strength, the risk is that developments in franchising and service trade will leave us with a branch-plant service sector alongside our branch-plant manufacturing sector.

Benefits of Service Trade

56. Trade in some services may directly provide only a limited number of new jobs. And some export of services -- specifically, export by establishments abroad -- may cause relatively limited patriation of money, because a substantial portion of profits may be re-invested in further expansion abroad. But the accumulated effect of expanded export of services in a number of areas is likely to be a significant total of direct new jobs, and such jobs tend to be relatively high-quality and high-income. Even more important than the direct employment impact of services trade, however, is the direct creation

of incremental wealth in the Ontario economy from the foreign payments for such services.

In addition, trade in services has important indirect benefits, by improving our access to foreign markets for related goods and for other services:

- Some services (consulting engineering for example) can play a major role in procurement decisions for a given project. Thus an Ontario engineering firm working on a project in a developing country might well recommend that equipment or materials be obtained from Ontario companies with whose products it is already familiar and with which it already has an established working relationship.

- Other services (education and training for example) can give us competitive advantages by familiarizing foreign decision-makers with what Ontario has to offer. Thus, for instance, attracting engineering students from developing countries to study here can provide an opportunity to familiarize them with the strengths of Ontario engineering firms and of relevant manufacturing firms. As those students return home and rise to positions of influence in their own economies, our industries can acquire an edge in their procurement decisions. This is true not only for a few specialized fields, but for virtually all areas of education, since these students from developing countries are likely to become part of the educated, decision-making elite, whether in business or in public administration.

- Foreign establishment (hotels and banking services for example) can provide an export market for Canadian goods and other services such as consulting to meet the needs of these establishments abroad. A substantial portion of U.S. exports of services, for instance, are to foreign subsidiaries of U.S. multinational firms.

57. By far the most promising market for increased export of our services appears to be in the newly-industrializing countries. As their affluence increases through the export of manufactured goods, these countries will increasingly need to build up and modernize their infrastructure.

These countries typically have a shortage of experienced technical managers, in both the private and the public sectors. This weakness tends to be particularly acute in the public sector, where the civil service may lack the expertise to advise on the best use of natural resources and to meet the increasingly complex demands on government that accompany rapid economic growth and urbanization.

Ontario Service Export Potential

58. The Ontario private sector has knowledge and expertise to sell to developing countries in many of these areas. Some of it is already being marketed successfully. Individual firms may lack the scope of expertise or the size to undertake some such projects. But in those instances the necessary packages of services can be assembled in the form of consortia of companies, individual experts, laboratories and academic institutions. A sampling of some Ontario private sector expertise in this regard includes:

Food production:

Genetics; breeding; soil-crop optimization; access to markets (roads, rail, shipping, for example); shelf-life extension; fertilizer and pesticides management; economics; laboratory services; quality control; storage; fish farming; veterinary services; food preparation; irrigation; dams.

Forestry:

Quality control; reforestation; laboratory services; saw mills; wood structures; pulp and paper; plywood and particleboard technology; forest crop optimization; pesticide application; financing and sales.

Finance:

Budgets; accounting practices; programs and planning options; banking; insurance; international law.

Infrastructure:

Traffic and parking control; transportation systems; industrial waste disposal; health services; office security; electrical generation and distribution; roads, airports and harbours; telecommunications.

Education:

Educational and job-training services; science centres; library information systems; radio and television.

Environment:

Urban water supply management; water recycling and purification; sewage management; urban air pollution control; garbage disposal management.

59. In addition to -- and complementary to -- such private-sector capacities, virtually every ministry of the Ontario Government has some specialized expertise that can be marketed either on its own or, preferably, as part of a private- and public-sector package. The following is just a very limited sampling of such expertise, intended to give a sense of its scope and potential:

Ministry of the Solicitor General:

- police training (potential tie-in with private sector Ontario industry in traffic signals and traffic engineering);
- forensic laboratory services;
- fire service training and fire investigation (potential tie-in with private-sector Ontario companies specializing in public water distribution systems, sprinkler protection systems for buildings, hoses, hydrants, pipe, protective clothing and firefighting vehicles).

Ministry of Natural Resources:

- remote sensing for assessment of forestry, agricultural, environmental and mining resources;
- automated mapping;
- planning and operation of large recreational parks;
- flood emergency modelling, planning and control;
- forest management planning;
- freshwater fish culture and hybridization;
- rabies control.

Ministry of Labour:

- assessment of chemical hazards in the workplace;
- custom design of preventative programs in occupational health to suit particular industrial conditions;
- occupational health and safety measures;
- radiation protection in mines, hospitals and industries.

Ministry of Northern Development and Mines:

- automated publication and management of geological data base;
- lake sediment geochemistry of acid lakes.

Ministry of Transportation and Communications:

- all aspects of design and management of roads and integrated transportation systems (e.g., contract administration systems, engineering materials research and evaluation, highway design, maintenance planning and management, etc.);
- driver and vehicle licencing and control systems;
- telecommunications.

Ministry of the Attorney General:

- expertise in drafting legislation (this likely cannot be "sold" for profit, but it could be offered to carefully selected countries in the

form of exchanges or loans of expert legal technicians). It is an example of the kind of specialized service activity that, while not profitably marketable in itself, can be used as a point of entry to secure favorable consideration of our service and/or goods exports.

Marketing of Service Exports

60. Marketing services is quite different from marketing goods, and requires specialized skills.

One fundamental difference is that, since services are intangible, they cannot be marketed by providing samples. In the goods-production sector, a small item can be sent to potential buyers, while large items can be put on display at trade fairs, and the like, for direct physical inspection; a customer can then purchase exactly what he has seen or seek specific modifications. In the case of services, a "sample" can at most be an exposition of roughly similar work done for some other client -- a past consulting report for example -- but that is not sampling in the same sense. Instead, the marketing of services relies to a much larger extent than goods-marketing on reputation, credibility with regard to promised performance and, where possible, satisfactory previous contact with the potential buyer.

A second difference is that the need for first-rate market intelligence and analysis is perhaps even greater than in the case of goods. A potential customer who needs a given type of good is likely to know that he needs it and seek out potential suppliers, and anyone observing developments in a given country can readily know that certain types of goods will need to be imported. But a newly-industrializing country may not know that a given type of sophisticated service -- or highly specialized package of complementary services, or of complementary goods and services -- can be provided as an alternative to the way it is dealing with some problem. And identifying the opportunity to offer such a service can require far more detailed and analytical knowledge of developments in that country than might be the case for goods.

Because the most promising market for export of sophisticated services is likely to be in the newly-industrializing countries, and because those countries tend to be characterized by a high degree of centralized government control over the economy, it is also worth noting that marketing of services is likely to involve dealing with foreign governments much more than with individual companies.

61. Given these characteristics of service marketing and the expertise that exists to be tapped within our private and public sectors, Ontario has a number of potential competitive advantages in the export of services:

- Canada -- and hence Ontario -- is particularly well-regarded in the developing countries.

- Given our mixed economy with a relatively high degree of government involvement, we are in a better position to offer developing countries service packages that include public-sector program management assistance in fields -- such as health care -- that are more privatized in some other developed countries.

Indeed, using health care as an example, Ontario could be in a position to offer newly-industrializing countries a highly innovative "turnkey" health care package that would include public-sector management and planning expertise, hospital and clinic construction, hospital and clinic administration, and medical and nursing training. (It might appear that there is no market for such elaborate packages, since World Bank assistance focusses on much more basic health care such as anti-malaria measures. But this overlooks the extremely rapid pace at which some countries are industrializing and thereby generating both wealth and the pressures and expectations associated with urbanization.)

Government Role in Marketing

62. Ontario has available a number of channels, private and public, through which the service sector can export. The activities of various ministries and agencies of the Government, such as Tourism, Environment, Ontario Hydro, Citizenship and Culture, Transportation and Communications, Education and Colleges and Universities provide examples of collaborative efforts in which the private and public sectors have combined forces to sell knowledge and specialized skills abroad.

The role of the Ontario International Corporation, established in 1980, is to provide an umbrella organization under which both goods and services may be sold in export markets. Its mandate has focussed on public sector services which can be sold either directly through the private sector or in government-to-government contracts and arrangements. It has major potential as a facilitator of a wide range of service industry and goods-producing industry exports.

The Ministry of Industry, Trade and Technology also has foreign offices which, in conjunction with federal offices, promote the entire range of Ontario exports, including services such as management consulting and engineering. The Ministry has established a joint technology centre in cooperation with the government of the Chinese province of Jiangsu, and one of its main purposes will be to establish potential markets for computer software.

These arrangements can, however, be improved, and the role of the Ontario International Corporation (OIC) can be focussed so as to give more prominence to the growing international trade in service industries. The intention would not be to replace the normal commercial interactions of the private-sector marketplace. Rather, it would be to ensure that where the OIC has a special role as a

facilitator and a gatherer of market intelligence, it can act so as to promote the export of services.

In that capacity, it would:

- carry out an ongoing and highly sophisticated market intelligence function to identify potential customers for Ontario service exports, with particular emphasis on newly-industrializing countries, and convey the information to potential exporters;
- maintain a detailed, up-to-date inventory of service export potential in both our private sector and within the Ontario government, and identify potential private- and public-sector linkages as well as linkages with the export of manufactured goods;
- promote, in a general sense, Ontario's service-exporting capacity through publications, advertising, trade missions, etc;
- serve as a central marketing agency for all service exports by the Ontario government;
- where appropriate, initiate the assembly of packages that combine government expertise with private sector services and/or goods, and market or assist in marketing those packages;
- where appropriate, take the lead in assisting the formation of consortia of small private sector firms to provide a service package that these firms would be unable to export individually;
- in instances where direct government-to-government deals provide a competitive advantage, take a role as prime contractor on behalf of qualified private sector companies, subject to appropriate performance guarantees; and
- provide advice to Ontario service exporters on the structuring of financing packages for potential deals.

Free Trade Issue

63. If the federal government proceeds with negotiations on a comprehensive Canada - U.S. free trade agreement, this will have far-reaching implications for the service sector in Ontario. The impact of free trade would be potentially greatest for those service sector industries in which there are at present substantial restrictions on foreign penetration -- notably financial services, communications, cultural industries, and transportation. It is vital that the likely costs and benefits of that impact be fully understood and carefully weighed.

APPENDIX

1. Canada. Statistics Canada. *The Labour Force, December, 1985.* (cat. no. 71-001) January, 1986.

   Note: The numbers in this paragraph and in the rest of this report are based on a comprehensive definition of the service sector that includes construction and utilities (see paragraphs 10, 11). Many earlier statistical approaches have excluded one or both of these industries.

2. Canada. Statistics Canada. *System of National Accounts, Provincial Gross Domestic Product by Industry.* (cat. no. 61-202). 1983.

   System of National Accounts, Provincial Economic Accounts: Experimental Data, 1969-1984. (cat. no. 13-213). February, 1986. Statistics from unpublished data.

3. Op. cit. 1.

4. Canada. Statistics Canada. *System of National Accounts, Provincial Gross Domestic Product by Industry, 1983.* (cat. no. 61-202). October, 1985.

5. United States. Department of Commerce. Bureau of Economic Analysis. *Survey of Current Business, March, 1986.* (vol. 66, no. 3).

6. Canada. Statistics Canada. *1981 Census of Canada, Population: Labour Force - Industry by Demographic & Educational Characteristics*, (cat. no. 92-921, vol. 1 - national series). January, 1984.

   1971 Census of Canada. Industries: Industries by Sex for Canada. Regions & Provinces, (cat. no. 94-740, vol. III - Part: 4, bulletin 3.4-3). December, 1974.

   1961 Census of Canada. Labour Force, Industries by Sex. (cat no. 94-518, vol. III - Part: 2). May, 1963.

   1951 Census of Canada, Labour Force, vol. IV. March, 1953.

   1941 Census of Canada, Gainfully Occupied by Occupations, Industries, vol. VII. December, 1944.

7. Ibid.

8. Op. cit. 1.

9. Op. cit. 1.

10. Op. cit. 1.

11. Canada. Statistics Canada. *Employment, Earnings and Hours,* (cat. no. 72-002). CANSIM Matrix 8363, retrieved March, 1986.

12. Ibid.
Note: Public Administration and defence data are not included as they are not available at this level of disaggregation.

13. Canada. Statistics Canada. Business Microdata Integration and Analysis. *Employment Creation by Industry, Firm size and Life Status, 1978-1983.* Special computer run.
Note: Public Administration and Defence data are not available for the special computer run.

14. Ibid.

15. Op. cit. 6.
Note: Miscellaneous services are excluded as this category did not exist in 1941.

16. Op. cit. 6.
Note: Miscellaneous services are excluded as this category did not exist in 1941 and because the activities in this category are too diverse to permit assigning the whole category to any one classification.

17. Op. cit. 13.

18. Canada. Statistics Canada. *System of National Accounts, Provincial Economic Accounts: Experimental Data, 1969-1984.* (cat. no. 13-213). February, 1986. Statistics from unpublished data.

19. Canada. Statistics Canada. Input-Output Division. From unpublished Ontario, 1979 input-output data.

20. Canada Consulting Group, Toronto. *The Information Economy.* May, 1984.

21. Canada. Statistics Canada. *Employment, Earnings and Hours,* (cat. no. 72-002). CANSIM Matrix 8371, retrieved April, 1986.

22. Ibid.

23. Op. cit. 13.

24. Canada. Department of Finance. *The Budget Papers*, Tabled in the House of Commons by the Honourable Michael H. Wilson, Minister of Finance, February 26, 1986.

25. Ontario. Ministry of Treasury & Economics. Taxation Policy Branch.

26. Canada. Statistics Canada. *Corporation Taxation Statistics, 1982*. (cat. no. 61-208). May, 1985. Calculations based on taxable income data in Table 9.

27. Ibid.

28. Canada. Department of External Affairs. Trade Policy Division. February, 1986.

29. United States. Office of the United States Trade Representative. *U.S. National Study on Trade in Services*, submitted by the U.S. to GATT. December, 1983.

30. Committee on Invisible Exports, London. *Annual Reports 1980/81*, July, 1981 *and 1982/83*, July, 1983.

31. Canada. Department of External Affairs. *National Study on Trade in Services*, submitted by Canada to GATT. January 18, 1984.

32. Op. cit. 29.

33. Canada. Statistics Canada. *System of National Accounts, Quarterly Estimates of the Canadian Balance of International Payments*, (cat. no. 67-001). CANSIM Matrix 273 and 274, retrieved March, 1986.

34. Canada. Statistics Canada. *System of National Accounts, Quarterly Estimates of the Canadian Balance of International Payments, 2nd Quarter, 1983* (cat. no. 67-001). October, 1983.